#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau



### - 1 (1911 | 1871) | 18 (1911 | 1914) | 1914 | 1914 | 1914 | 1914 | 1914 | 1914 | 1914 | 1914 | 1914 | 1914 | 1

### (43) International Publication Date 7 October 2004 (07.10.2004)

### PCT

## (10) International Publication Number WO 2004/085786 A1

(51) International Patent Classification<sup>7</sup>: 9/322, 9/56

E06B 9/90,

(21) International Application Number:

PCT/IB2004/001050

(22) International Filing Date: 24 March 2004 (24.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: BO2003A000174 22

28 March 2003 (28.03.2003) IT

(71) Applicant and

(72) Inventor: MINDER, Carl, Emil, Felix [IT/IT]; Via Disciplini 9, I-20123 Milano (IT).

(74) Agent: DALL'OLIO, Giancarlo; Invention S.a.s., Via delle Armi 1, I-40137 Bologna (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

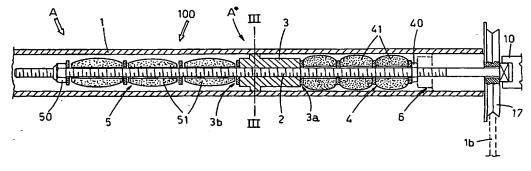
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A FRICTION DEVICE FOR ROLLING UP CURTAINS AND THE LIKE



(57) Abstract: A friction device for rolling up curtains and the like includes a tubular roller (1), on which a curtain (1a) is wound. The roller (1) is rotatably carried by a support (10) and a threaded stem (2) is situated axially inside the roller (1) and carries, mounted thereon by a screw coupling, an operative body (3), likewise situated inside the roller (1). The operative body (3) translates axially with respect to the threaded stem (2) during motion of the curtain (1a) from a rolled up configuration (A) to a unrolled configuration (B). Elastic blocks (41, 51) push on the operating body (3) to produce a friction effect on the operating body and transmitted to roller (1) during curtain (1a) transition between the unrolled and rolled up configurations, thus allowing operation of the curtain in a substantially balanced way during rolling up and/or unrolling. Stop nuts (40, 50) are fastened to the threaded stem (2) for compressing the elastic blocks against surfaces of the operating body (3).

